



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

5514 7590 02/01/2010

FITZPATRICK CELLA HARPER & SCINTO
1290 Avenue of the Americas
NEW YORK, NY 10104-3800

EXAMINER	
HUSSAIN, IMAD	
ART UNIT	PAPER NUMBER
2451	

DATE MAILED: 02/01/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,726	12/07/2005	Youenn Fablet	01807.107781.	1838

TITLE OF INVENTION: DESCRIPTION DOCUMENT FOR A SERVICE OFFERED BY A SERVER IN A COMMUNICATION NETWORK AND METHOD OF VALIDATING A MULTIMEDIA DOCUMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/03/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

5514 7590 02/01/2010

FITZPATRICK CELLA HARPER & SCINTO
1290 Avenue of the Americas
NEW YORK, NY 10104-3800

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,726	12/07/2005	Youenn Fablet	01807.107781.	1838

TITLE OF INVENTION: DESCRIPTION DOCUMENT FOR A SERVICE OFFERED BY A SERVER IN A COMMUNICATION NETWORK AND METHOD OF VALIDATING A MULTIMEDIA DOCUMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/03/2010
EXAMINER	ART UNIT	CLASS-SUBCLASS				
HUSSAIN, IMAD		2451	709-226000			

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:

Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,726	12/07/2005	Youenn Fablet	01807.107781.	1838
5514	7590	02/01/2010	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 1290 Avenue of the Americas NEW YORK, NY 10104-3800				HUSSAIN, IMAD
ART UNIT		PAPER NUMBER		
2451 DATE MAILED: 02/01/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 168 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 168 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/559,726	FABLET, YOUENN	
	Examiner	Art Unit	
	IMAD HUSSAIN	2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to Applicant's submission filed 18 November 2009.
2. The allowed claim(s) is/are 1-19,21,28,29 and 32-35.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

/I. H./
Imad Hussain
Examiner, Art Unit 2451

/John Follansbee/
Supervisory Patent Examiner, Art Unit 2451

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John J. Wakeley on 26 January 2010.

The claims have been amended as follows:

1. (currently amended) A computer-readable storage medium storing control logic for causing a computer to implement a method of offering a service, described in a service description document, in a communication network, wherein the method includes:

extracting, from the service description document, ~~a first an~~ abstract part;

extracting, from the service description document, a ~~second~~ concrete part;

extracting, from a binary multimedia document, a content description of the binary multimedia document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

transmitting an error message, if the content description does not satisfy the abstract constraints,
wherein the first abstract part is adapted to describe at least one message exchanged over the communication network when the service is performed,
wherein the first abstract part includes a description of abstract constraints associated with the binary multimedia document,
wherein the second concrete part is adapted to describe information relating to transmission of the messages over the communication network, and
wherein characteristics of the extracted content description are determined by the abstract constraints extracted from the service description document, wherein the description of abstract constraints is represented in a schema language and defines a set of minimum constraints that the binary multimedia document must meet to be processed when the service is performed.

2. (previously presented) A computer-readable storage medium according to claim 1, wherein the description of the abstract constraints is represented using semantics of a description language of a content of the binary multimedia document.

3. (previously presented) A computer-readable storage medium according to one of Claims 1 and 2, wherein the description of abstract constraints is represented using semantics defined by a Moving Picture Experts Group 7 (MPEG7) standard.

4. (previously presented) A computer-readable storage medium according to one of Claims 1 and 2, wherein the description of abstract constraints is represented in Extensible Mark-up Language (XML).

5. (previously presented) A computer-readable medium according to one of Claims 1 and 2, wherein the description of abstract constraints is represented in a schema language and includes tags defined using semantics of a Moving Picture Experts Group 7 (MPEG7) standard.

6. (previously presented) A computer-readable storage medium according to one of Claims 1 and 2, wherein the description of abstract constraints is represented in a description language of a content of the binary multimedia document, such that tags are adapted to integrate directly or by reference attributes represented in a schema mark-up language.

7. (previously presented) A computer-readable storage medium in accordance with Claim 6, wherein the description language of the content of the binary multimedia document is defined according to a Moving Picture Experts Group 7 (MPEG7) standard.

8. (previously presented) A computer-readable storage medium according to one of Claims 1 and 2, wherein the description of abstract constraints is represented in a schema language adapted to define a set of minimum constraints.

9. (currently amended) A computer-readable storage medium according to one of Claims 1 and 2, wherein the description of abstract constraints is inserted in a sub-part of the ~~first~~ abstract part and is adapted to describe an abstract structure of messages exchanged.

10. (currently amended) A computer-readable storage medium according to Claim 9, wherein the ~~first~~ abstract part includes a ~~second~~ sub-part adapted to declare at least one elementary message pointing to the description of the abstract constraints.

11. (previously presented) A computer-readable storage medium according to Claim 10, wherein the at least one elementary message is associated with an attribute adapted to specify that the at least one elementary message is of a binary multimedia content type.

12. (currently amended) A method of producing a request for a service offered by a server, which includes a processor, in a communication network, wherein the service is described in a service description document, the method comprising:

reading, by the processor, the service description document;
selecting, by the processor, ~~a first~~ an abstract part of the service description document;

extracting, by the processor, a description of abstract constraints;

selecting, by the processor, a binary multimedia document according to the description of the abstract constraints;

producing, by the processor, a request for the server in the communication network;

extracting, by the processor, from the binary multimedia document, a content description of the binary multimedia document;

comparing, by the processor, the content description and the description of the abstract constraints extracted from the service description document;

if at least one characteristic specified by the description of abstract constraints is determined to be missing from the extracted content description, extracting, by the processor, the at least one missing characteristic from the binary multimedia document and adding the at least one missing characteristic to the content description;

comparing again, by the processor, the content description and the description of the abstract constraints extracted from the service description document; and

transmitting, by the processor, the request to the server, if the content description satisfies the abstract constraints,

wherein the first abstract part is adapted to describe at least one message exchanged over the communication network when an operation associated with the service is performed,

wherein the description of the abstract constraints is associated with the binary multimedia document,

wherein the request includes the binary multimedia document selected,

wherein characteristics of the extracted content description correspond to the abstract constraints extracted from the service description document.

13. (previously presented) A method of validating a binary multimedia document when a service offered by a server, which includes a processor, in a communication network is performed, wherein the service is associated with a service description document, the method comprising:

acquiring, by the processor, the binary multimedia document;

extracting, by the processor, a description of abstract constraints associated with the binary multimedia document from the service description document;

extracting, by the processor, from the binary multimedia document, a content description of the binary multimedia document;

comparing, by the processor, the content description and the description of the abstract constraints extracted from the service description document;

if at least one characteristic specified by the description of abstract constraints is determined to be missing from the extracted content description, extracting, by the processor, the at least one missing

characteristic from the binary multimedia document and adding the at

least one missing characteristic to the content description;

comparing again, by the processor, the content description
and the description of the abstract constraints extracted from the service
description document; and

implementing, by the processor, the service on the binary
multimedia document, if the content description satisfies the abstract
constraints,

wherein characteristics of the extracted content description
correspond to the abstract constraints extracted from the service
description document.

14. (previously presented) The method according to claim
13, wherein the description of the abstract constraints is represented in a
language describing a content of the binary multimedia document.

15. (previously presented) The method according to one of
claims 13 and 14, wherein a language describing a content of the binary
multimedia document is defined under a Moving Picture Experts Group 7
(MPEG-7) standard.

16. (previously presented) The method according to one of claims 13 and 14, wherein, in the extracting of the content description, a Moving Picture Experts Group 7 (MPEG-7) description of the binary multimedia document inserted in the binary multimedia document is extracted.

17. (previously presented) The method according to one of claims 13 and 14, wherein the method is performed during selection of the binary multimedia document to be inserted in a message exchanged during implementation of the service offered by the server in the communication network.

18. (previously presented) The method according to one of claims 13 and 14, wherein the method is performed during validation of a request received by the server in the communication network for implementing the service associated with the service description document.

19. (currently amended) A device for producing a request for a service offered by a server in a communication network, wherein the service is described in a service description document, the device comprising:

a microprocessor;

a read only memory adapted to store a program for producing the request for the service;

a random access memory including registers adapted to store variables modified during execution of the program;

means for reading the service description document;

means for selecting ~~a first~~ an abstract part of the service description document, wherein the ~~first~~ abstract part is adapted to describe at least one message exchanged over the communication network when an operation associated with the service is performed;

means for extracting a description of abstract constraints associated with a binary multimedia document from the service description document;

means for selecting the binary multimedia document according to the description of the abstract constraints;

means for extracting, from the binary multimedia document, a content description of the binary multimedia document, wherein characteristics of the extracted content description correspond to the abstract constraints extracted from the service description document;

means for comparing the content description and the description of the abstract constraints extracted from the service description document;

means for extracting the at least one missing characteristic from the binary multimedia document and adding the at least one missing characteristic to the content description, if at least one characteristic specified by the description of abstract constraints is determined to be missing from the extracted content description;

means for comparing again the content description and the description of the abstract constraints extracted from the service description document; and

means for producing a request for the service offered by the server in the communication network, if the content description satisfies the abstract constraints, wherein the request includes the binary multimedia document selected.

20. (canceled).

21. (previously presented) A device for validating a binary multimedia document during implementation of a service offered by a server in a communication network, wherein the service is associated with a service description document, the device comprising:

a microprocessor;
a read only memory adapted to store a program for validating the binary multimedia document;

a random access memory including registers adapted to store variables modified during execution of the program;

means for acquiring the binary multimedia document;

means for extracting a description of abstract constraints associated with the binary multimedia document from the service description document;

means for extracting, from the binary multimedia document, a content description of the binary multimedia document;

means for comparing the content description and the description of the abstract constraints extracted from the service description document;

means for extracting the at least one missing characteristic from the binary multimedia document and adding the at least one missing characteristic to the content description, if at least one characteristic specified by the description of abstract constraints is determined to be missing from the extracted content description; and

means for comparing again the content description and the description of the abstract constraints extracted from the service description document,

wherein characteristics of the extracted content description correspond to the abstract constraints extracted from the service description document.

22. - 27. (canceled).

28. (previously presented) A computer-readable storage medium storing control logic for causing a computer to perform a method of validating a binary multimedia document in accordance with one of claims 13 and 14.

29. (previously presented) A computer-readable storage medium storing control logic for causing a computer to perform a method of producing a request according to claim 12.

30. and 31. (canceled).

32. (previously presented) The method according to claim 5, wherein the abstract constraints are represented in an XML-Schema language or in a Relax-NG language.

33. (previously presented) The method according to claim 6, wherein the attributes are represented in an XML-Schema language.

34. (previously presented) The method according to claim 8, wherein the description of the abstract constraints is represented in a Schematron language.

35. (previously presented) The method according to claim 13, further comprising:

extracting a Moving Picture Experts Group 7 (MPEG7) description associated with the binary multimedia document;

comparing said MPEG7 description and the description of the abstract constraints;

reiterating the extracting of the MPEG7 description, if a characteristic of the MPEG7 description is missing;

extracting the characteristic from the binary multimedia document; and

adding the characteristic to the MPEG7 description.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IMAD HUSSAIN whose telephone number is (571) 270-3628. The examiner can normally be reached on weekdays from 0800 to 1700, except Wednesdays,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone

Art Unit: 2451

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/I. H./
Imad Hussain
Examiner, Art Unit 2451

/John Follansbee/
Supervisory Patent Examiner, Art Unit 2451